1997 Index IEEE Transactions on Knowledge and Data Engineering Vol. 9

This index covers all technical items - papers, correspondence, reviews, etc. - that appeared in this periodical during 1997, and items from previous years that were commented upon or corrected in 1997.

The Author Index contains the primary entry for each item, listed under the first author's name, and cross-references from all coauthors. The Subject Index contains several entries for each item under appropriate subject headings, and subject cross-references.

It is always necessary to refer to the primary entry in the Author Index for the exact title, coauthors, and comments/corrections.

AUTHOR INDEX

Adam, N.R., and A. Gangopadhyay. A form-based natural language front-end to a CIM database; *T-KDE Mar-Apr 97* 238-250

Atluri, V., S. Jajodia, and E. Bertino. Transaction processing in multilevel secure databases with kernelized architecture: Challenges and solutions; *T-KDE Sep-Oct* 97 697-708

Badrinath, B.R., see Imielinski, T., T-KDE May-Jun 97 353-372

Baekgaard, L., and L. Mark. Incremental computation of set difference views; T-KDE Mar-Apr 97 251-261

Benaroch, M. Toward the notion of a knowledge repository for financial risk management; T-KDE Jan-Feb 97 161-167

Bertino, E., P. Samarati, and S. Jajodia. An extended authorization model for

relational databases; T-KDE Jan-Feb 97 85-101

Bertino, E., and P. Foscoli. On modeling cost functions for object-oriented databases; *T-KDE May-Jun 97* 500-508

Bertino, E., see Samarati, P., T-KDE Jul-Aug 97 524-538 Bertino, E., see Atluri, V., T-KDE Sep-Oct 97 697-708

Bertino, E., see Montesi, D., T-KDE Sep-Oct 97 784-797

Bober, P.M., and M.J. Carey. Indexing for multiversion locking: alternatives and performance evaluation; *T-KDE Jan-Feb 97* 68-84

Bohren, B.F., see Hadzikadic, M., *T-KDE Jan-Feb 97* 168-173

Buchanan, G.C., see Vaishnavi, V.K., *T-KDE Mar-Apr 97* 275-291

Cadoli, M., T. Eiter, and G. Gottlob. Default logic as a query language; T-KDE May-Jun 97 448-463

Carey, M.J., see Bober, P.M., T-KDE Jan-Feb 97 68-84 Chang, C.C., see Chen, C.Y., T-KDE Jan-Feb 97 148-160

Chang Ye-In, see Ye-In Chang, T-KDE Jan-Feb 97 179-185 Chen, C.-J., see Lee, C., T-KDE Nov-Dec 97 941-955 Chen, C.Y., H.F. Lin, C.C. Chang, and R.C.T. Lee. Optimal bucket allocation design of k-ary MKH files for partial match retrieval; T-KDE Jan-Feb 97 148-160

Chen, C.Y., and B.C. Ooi. Efficient scheduling of page access in index-based

join processing; T-KDE Nov-Dec 97 1005-1011 Chen-Ching Liu, see Rosenwald, G.W., T-KDE Jan-Feb 97 24-31

Cheng, B.H.C., and Jun-Jang Jeng. Reusing analogous components; T-KDE Mar-Apr 97 341-349

Chen Ming-Syan, see Ming-Syan Chen, T-KDE May-Jun 97 384-390 Chen Ming-Syan, see Jong Soo Park, T-KDE Sep-Oct 97 813-825

Chen Weidong, see Ramesh, R., T-KDE Jul-Aug 97 559-574

Chen Weidong, see Weidong Chen, T-KDE Jul-Aug 97 587-599 Chen Ye-Sho, see Ramaswamy, M., T-KDE Mar-Apr 97 221-237

Chu, P.C. Cell suppression methodology: the importance of suppressing marginal totals; T-KDE Jul-Aug 97 513-523

Chun Hon Wai, see Hon Wai Chun, T-KDE Jul-Aug 97 625-639 Ciampichetti, A., see Samarati, P., T-KDE Jul-Aug 97 524-538 Cook, D.J., see Djoko, S., T-KDE Jul-Aug 97 575-586

Cyre, W.R. Capture, integration, and analysis of digital system requirements with conceptual graphs; *T-KDE Jan-Feb 97* 8-23

D

Dalebout, A., see Dutta, S., T-KDE Nov-Dec 97 911-922

Danzig, P.B., see Li, S.-H., T-KDE Nov-Dec 97 863-876

Desmarais, M.C., see Liu, J., T-KDE Nov-Dec 97 990-1004 Dihua Xi, see Tang, Y.Y., T-KDE Sep-Oct 97 747-762 DiPippo, L.C., and V.F. Wolfe. Object-based semantic real-time concurrency control with bounded imprecision; T-KDE Jan-Feb 97 135-147

Djoko, S., D.J. Cook, and L.B. Holder. An empirical study of domain knowledge and its benefits to substructure discovery; T-KDE Jul-Aug 97

Doan, K.P.V., and Kit Po Wong. SHAPES: A novel approach for learning search heuristics in under-constrained optimization problems; T-KDE Sep-Oct 97 731-746

Duen-Ren Liu, see Shekhar, S., T-KDE Jan-Feb 97 102-119

Dutta, S., B. Wierenga, and A. Dalebout. Case-based reasoning systems: From automation to decision-aiding and simulation; T-KDE Nov-Dec 97

Edwards, P., see Payne, T.R., T-KDE Mar-Apr 97 329-335 Eiter, T., see Cadoli, M., T-KDE May-Jun 97 448-463 Ellis, N.C., see Fujihara, H., T-KDE Mar-Apr 97 209-220

Faloutsos, A., see Petrakis, E.G.M., T-KDE May-Jun 97 435-447

Faloutsos, C., H.V. Jagadish, and Y. Manolopoulos. Analysis of the n-dimensional quadtree decomposition for arbitrary hyperrectangles; T-KDE May-Jun 97 373-383

Ford, D.A. Dismountable media management in tertiary storage systems; T-KDE Mar-Apr 97 350-351

Foscoli, P., see Bertino, E., T-KDE May-Jun 97 500-508

Fraternali, P., and S. Paraboschi. Ordering and selecting production rules for constraint maintenance: complexity and heuristic solution; T-KDE Jan-Feb 97 173-178

Frieder, O., and H.T. Siegelmann. Multiprocessor document allocation: a

genetic algorithm approach; *T-KDE Jul-Aug* 97 640-642 **Fujihara, H.**, D.B. Simmons, N.C. Ellis, and R.E. Shannon. Knowledge conceptualization tool; *T-KDE Mar-Apr* 97 209-220

G

Gangopadhyay, A., see Adam, N.R., T-KDE Mar-Apr 97 238-250

Gligor, V.D., see Shiuh-Pyng Shieh, T-KDE Jul-Aug 97 661-667

Goldstein, R.C., and C. Wagner. Database management with sequence trees and tokens; *T-KDE Jan-Feb 97* 186-192

Gottlob, G., see Cadoli, M., T-KDE May-Jun 97 448-463 Green, C.L., see Payne, T.R., T-KDE Mar-Apr 97 329-335 Griffin, T., L. Libkin, and H. Trickey. An improved algorithm for the incremental recomputation of active relational expressions; *T-KDE May-Jun 97* 508-511

H

Hadzikadic, M., and B.F. Bohren. Learning to predict: INC2.5; T-KDE Jan-Feb 97 168-173

Hayes, C.C., and M.I. Parzen. QUEM: An achievement test for knowledge-based systems; *T-KDE Nov-Dec 97* 838-847

Holder, L.B., see Djoko, S., *T-KDE Jul-Aug 97* 575-586

Hong Ma, see Tang, Y.Y., *T-KDE Sep-Oct 97* 747-762

Hong Se June, see Se June Hong, *T-KDE Sep-Oct 97* 709-717

Hang Se June and Se June Hong, *T-KDE Sep-Oct 97* 709-717

Hong Se June, see Se June Hong, T-KDE Sep-Oct 97 709-717
Hong Se June, see Se June Hong, T-KDE Sep-Oct 97 718-730
Hong Tzung-Pai, see Tzung-Pai Hong, T-KDE Mar-Apr 97 336-340
Hon Wai Chun, and E. Ming-Kit Lai. Intelligent critic system for

architectural design; T-KDE Jul-Aug 97 625-639 Huan Liu, and R. Setiono. Feature selection via discretization; T-KDE

Jul-Aug 97 642-645

Hursch, W., see Ling Liu, T-KDE Jan-Feb 97 50-67

1997 Index IEEE Transactions on Knowledge and Data Engineering Vol. 9

This index covers all technical items - papers, correspondence, reviews, etc. - that appeared in this periodical during 1997, and items from previous years that were commented upon or corrected in 1997.

The Author Index contains the primary entry for each item, listed under the first author's name, and cross-references from all coauthors. The Subject Index contains several entries for each item under appropriate subject headings, and subject cross-references.

It is always necessary to refer to the primary entry in the Author Index for the exact title, coauthors, and comments/corrections.

AUTHOR INDEX

Adam, N.R., and A. Gangopadhyay. A form-based natural language front-end to a CIM database; *T-KDE Mar-Apr 97* 238-250

Atluri, V., S. Jajodia, and E. Bertino. Transaction processing in multilevel secure databases with kernelized architecture: Challenges and solutions; T-KDE Sep-Oct 97 697-708

Badrinath, B.R., see Imielinski, T., T-KDE May-Jun 97 353-372

Baekgaard, L., and L. Mark. Incremental computation of set difference views; T-KDE Mar-Apr 97 251-261

Benaroch, M. Toward the notion of a knowledge repository for financial risk

management; T-KDE Jan-Feb 97 161-167

Bertino, E., P. Samarati, and S. Jajodia. An extended authorization model for relational databases; T-KDE Jan-Feb 97 85-101

Bertino, E., and P. Foscoli. On modeling cost functions for object-oriented databases; *T-KDE May-Jun* 97 500-508

Bertino, E., see Samarati, P., *T-KDE Jul-Aug* 97 524-538

Bertino, E., see Atluri, V., *T-KDE Sep-Oct* 97 697-708

Bertino, E., see Montesi, D., *T-KDE Sep-Oct* 97 784-797

Bober, P.M., and M.J. Carey. Indexing for multiversion locking: alternatives and performance evaluation; *T-KDE Jan-Feb 97* 68-84
Bohren, B.F., see Hadzikadic, M., *T-KDE Jan-Feb 97* 168-173

Buchanan, G.C., see Vaishnavi, V.K., T-KDE Mar-Apr 97 275-291

Cadoli, M., T. Eiter, and G. Gottlob. Default logic as a query language; T-KDE May-Jun 97 448-463

Carey, M.J., see Bober, P.M., *T-KDE Jan-Feb* 97 68-84 Chang, C.C., see Chen, C.Y., *T-KDE Jan-Feb* 97 148-160

Chang Ye-In, see Ye-In Chang, T-KDE Jan-Feb 97 179-185 Chen, C.-J., see Lee, C., T-KDE Nov-Dec 97 941-955

Chen, C.Y., H.F. Lin, C.C. Chang, and R.C.T. Lee. Optimal bucket allocation design of k-ary MKH files for partial match retrieval; T-KDE Jan-Feb 97 148-160

Chen, C.Y., and B.C. Ooi. Efficient scheduling of page access in index-based join processing; T-KDE Nov-Dec 97 1005-1011

Chen-Ching Liu, see Rosenwald, G.W., T-KDE Jan-Feb 97 24-31

Cheng, B.H.C., and Jun-Jang Jeng. Reusing analogous components; *T-KDE Mar-Apr* 97 341-349

Chen Ming-Syan, see Ming-Syan Chen, T-KDE May-Jun 97 384-390

Chen Ming-Syan, see Jong Soo Park, T-KDE Sep-Oct 97 813-825 Chen Weidong, see Ramesh, R., T-KDE Jul-Aug 97 559-574

Chen Weidong, see Weidong Chen, T-KDE Jul-Aug 97 587-599 Chen Ye-Sho, see Ramaswamy, M., T-KDE Mar-Apr 97 221-237

Chu, P.C. Cell suppression methodology: the importance of suppressing marginal totals; *T-KDE Jul-Aug 97* 513-523

Chun Hon Wai, see Hon Wai Chun, T-KDE Jul-Aug 97 625-639 Ciampichetti, A., see Samarati, P., T-KDE Jul-Aug 97 524-538 Cook, D.J., see Djoko, S., T-KDE Jul-Aug 97 575-586

Cyre, W.R. Capture, integration, and analysis of digital system requirements with conceptual graphs; T-KDE Jan-Feb 97 8-23

D

Dalebout, A., see Dutta, S., T-KDE Nov-Dec 97 911-922

Danzig, P.B., see Li, S.-H., T-KDE Nov-Dec 97 863-876

Desmarais, M.C., see Liu, J., T-KDE Nov-Dec 97 990-1004 Dihua Xi, see Tang, Y.Y., T-KDE Sep-Oct 97 747-762 DiPippo, L.C., and V.F. Wolfe. Object-based semantic real-time concurrency control with bounded imprecision; T-KDE Jan-Feb 97 135-147

Djoko, S., D.J. Cook, and L.B. Holder. An empirical study of domain knowledge and its benefits to substructure discovery; T-KDE Jul-Aug 97

Doan, K.P.V., and Kit Po Wong. SHAPES: A novel approach for learning search heuristics in under-constrained optimization problems; T-KDE Sep-Oct 97 731-746

Duen-Ren Liu, see Shekhar, S., T-KDE Jan-Feb 97 102-119

Dutta, S., B. Wierenga, and A. Dalebout. Case-based reasoning systems: From automation to decision-aiding and simulation; T-KDE Nov-Dec 97

Edwards, P., see Payne, T.R., *T-KDE Mar-Apr 97* 329-335 **Eiter**, **T.**, see Cadoli, M., *T-KDE May-Jun 97* 448-463 Ellis, N.C., see Fujihara, H., T-KDE Mar-Apr 97 209-220

Faloutsos, A., see Petrakis, E.G.M., T-KDE May-Jun 97 435-447

Faloutsos, C., H.V. Jagadish, and Y. Manolopoulos. Analysis of the n-dimensional quadtree decomposition for arbitrary hyperrectangles; T-KDE May-Jun 97 373-383

Ford, D.A. Dismountable media management in tertiary storage systems; T-KDE Mar-Apr 97 350-351

Foscoli, P., see Bertino, E., T-KDE May-Jun 97 500-508

Fraternali, P., and S. Paraboschi. Ordering and selecting production rules for constraint maintenance: complexity and heuristic solution; T-KDE Jan-Feb 97 173-178

Frieder, O., and H.T. Siegelmann. Multiprocessor document allocation: a genetic algorithm approach; T-KDE Jul-Aug 97 640-642

Fujihara, H., D.B. Simmons, N.C. Ellis, and R.E. Shannon. Knowledge conceptualization tool; T-KDE Mar-Apr 97 209-220

G

Gangopadhyay, A., see Adam, N.R., T-KDE Mar-Apr 97 238-250 Gligor, V.D., see Shiuh-Pyng Shieh, T-KDE Jul-Aug 97 661-667 Goldstein, R.C., and C. Wagner. Database management with sequence trees and tokens; T-KDE Jan-Feb 97 186-192

Gottlob, G., see Cadoli, M., T-KDE May-Jun 97 448-463 Green, C.L., see Payne, T.R., T-KDE Mar-Apr 97 329-335

Griffin, T., L. Libkin, and H. Trickey. An improved algorithm for the incremental recomputation of active relational expressions; T-KDE May-Jun 97 508-511

Hadzikadic, M., and B.F. Bohren. Learning to predict: INC2.5; T-KDE Jan-Feb 97 168-173

Hayes, C.C., and M.I. Parzen. QUEM: An achievement test for knowledge-based systems; T-KDE Nov-Dec 97 838-847

Holder, L.B., see Djoko, S., T-KDE Jul-Aug 97 575-586

Hong Ma, see Tang, Y.Y., T-KDE Sep-Oct 97 747-762

Hong Se June, see Se June Hong, T-KDE Sep-Oct 97 709-717

Hong Se June, see Se June Hong, T-KDE Sep-Oct 97 718-730

Hong Tzung-Pai, see Tzung-Pai Hong, T-KDE Mar-Apr 97 336-340

Hon Wai Chun, and E. Ming-Kit Lai. Intelligent critic system for architectural design; *T-KDE Jul-Aug* 97 625-639

Huan Liu, and R. Setiono. Feature selection via discretization; T-KDE Jul-Aug 97 642-645

Hursch, W., see Ling Liu, T-KDE Jan-Feb 97 50-67

Imielinski, T., S. Viswanathan, and B.R. Badrinath. Data on air: organization and access; T-KDE May-Jun 97 353-372

Jagadish, H.V., see Faloutsos, C., T-KDE May-Jun 97 373-383 Jajodia, S., see Bertino, E., T-KDE Jan-Feb 97 85-101 Jajodia, S., see Samarati, P., T-KDE Jul-Aug 97 524-538 Jajodia, S., see Atluri, V., T-KDE Sep-Oct 97 697-708 Jeng Jun-Jang, see Cheng, B.H.C., T-KDE Mar-Apr 97 341-349 Jong Soo Park, Ming-Syan Chen, and P.S. Yu. Using a hash-based method

with transaction trimming for mining association rules; T-KDE Sep-Oct

June Hong Se, see Se June Hong, T-KDE Sep-Oct 97 709-717 June Hong Se, see Se June Hong, T-KDE Sep-Oct 97 718-730 Jun-Jang Jeng, see Cheng, B.H.C., T-KDE Mar-Apr 97 341-349

Kit Po Wong, see Doan, K.P.V., T-KDE Sep-Oct 97 731-746 Kobrosly, W., see Vassiliadis, S., T-KDE Jul-Aug 97 646-652 Kuechler, W.L., Jr., see Vaishnavi, V.K., T-KDE Mar-Apr 97 275-291 Kulkarni, U.R., and R.G. Ramirez. Independently updated views; T-KDE Sep-Oct 97 798-812

Kun-Lung Wu, P.S. Yu, and C. Pu. Divergence control algorithms for epsilon serializability; T-KDE Mar-Apr 97 262-274

Lander, S.E., and V.R. Lesser. Sharing metainformation to guide cooperative search among heterogeneous reusable agents; T-KDE Mar-Apr 97 193-208

Lee, C., and C.-J. Chen. Query optimization in multidatabase systems considering schema conflicts; *T-KDE Nov-Dec 97* 941-955

Lee, C.-I., see Ye-In Chang, T-KDE Jan-Feb 97 179-185
Lee, R.C.T., see Chen, C.Y., T-KDE Jan-Feb 97 148-160
Leiss, E.L., see Majetic, I., T-KDE Jul-Aug 97 668-672
Leone, N., P. Rullo, A. Mecchia, and G. Rossi. A deductive environment for

dealing with objects and nonmonotonic reasoning; T-KDE Jul-Aug 97 539-558

Lesser, V.R., see Lander, S.E., *T-KDE Mar-Apr* 97 193-208 Leutenegger, S.T., and D.M. Nicol. Efficient bulk-loading of gridfiles; *T-KDE May-Jun* 97 410-420

Li, S.-H., and P.B. Danzig. Boolean similarity measures for resource discovery; T-KDE Nov-Dec 97 863-876

Libkin, L., see Griffin, T., T-KDE May-Jun 97 508-511 Lieberherr, K.J., see Ling Liu, T-KDE Jan-Feb 97 50-67 Lin, H.F., see Chen, C.Y., T-KDE Jan-Feb 97 148-160

Ling Liu, R. Zicari, W. Hursch, and K.J. Lieberherr. The role of polymorphic reuse mechanisms in schema evolution in an object-oriented database; T-KDE Jan-Feb 97 50-67

Liu, J., and M.C. Desmarais. A method of learning implication networks from empirical data: Algorithm and Monte-Carlo simulation-based validation; T-KDE Nov-Dec 97 990-1004

Liu Chen-Ching, see Rosenwald, G.W., T-KDE Jan-Feb 97 24-31
Liu Duen-Ren, see Shekhar, S., T-KDE Jan-Feb 97 102-119
Liu Huan, see Huan Liu, T-KDE Jul-Aug 97 642-645
Liu Ling, see Ling Liu, T-KDE Jan-Feb 97 50-67
Lorentzos, N.A., and Y.G. Mitsopoulos. SQL extension for interval data; T-KDE May-Jun 97 480-499

Lunt, T.F., see Xiaolei Qian, T-KDE Mar-Apr 97 292-301

Ma Hong, see Tang, Y.Y., T-KDE Sep-Oct 97 747-762 Majetic, I., and E.L. Leiss. Authorization and revocation in object-oriented Majetic, I., and E.L. Leiss. Authorization and revocation in object databases; T-KDE Jul-Aug 97 668-672

Mannino, M.V., see Mookerjee, V.S., T-KDE Sep-Oct 97 675-687

Manolopoulos, Y., see Faloutsos, C., T-KDE May-Jun 97 373-383

Mao Xiaogang, see Tang, Y.Y., T-KDE Sep-Oct 97 747-762

Mark, L., see Baekgaard, L., T-KDE Mar-Apr 97 251-261

Martelli, M., see Montesi, D., T-KDE Sep-Oct 97 784-797

Mecchia, A., see Leone, N., T-KDE Jul-Aug 97 539-558

Ming Kit Lai, E., see Hon Wai Chun, T-KDE Jul-Aug 97 625-639

Ming-Kit Lai, E., see Hon Wai Chun, T-KDE Jul-Aug 97 625-639 Ming-Syan Chen, and P.S. Yu. Optimal design of multiple hash tables for concurrency control; *T-KDE May-Jun 97* 384-390

Ming-Syan Chen, see Jong Soo Park, T-KDE Sep-Oct 97 813-825

Samarati, P., see Bertino, E., T-KDE Jan-Feb 97 85-101 Samarati, P., E. Bertino, A. Ciampichetti, and S. Jajodia. Information flow control in object-oriented systems; T-KDE Jul-Aug 97 524-538

Sarkar, S., see Ramaswamy, M., T-KDE Mar-Apr 97 221-237 Se June Hong R-MINI: An iterative approach for generating minimal rules

from examples; T-KDE Sep-Oct 97709-717 Se June Hong Use of contextual information for feature ranking and discretization; *T-KDE Sep-Oct 97* 718-730
Setiono, R., see Huan Liu, *T-KDE Jul-Aug 97* 642-645

Shannon, R.E., see Fujihara, H., T-KDE Mar-Apr 97 209-220

Mitsopoulos, Y.G., see Lorentzos, N.A., T-KDE May-Jun 97 480-499 Moffat, A., J. Zobel, and N. Sharman. Text compression for dynamic document databases; *T-KDE Mar-Apr* 97 302-313

Montesi, D., E. Bertino, and M. Martelli. Transactions and updates in deductive databases; T-KDE Sep-Oct 97 784-797

Mookerjee, V.S., and M.V. Mannino. Sequential decision models for expert

system optimization; T-KDE Sep-Oct 97 675-687

Mussi, S. Strategic reasoning under trade-offs between action costs and advantages; *T-KDE Nov-Dec 97* 923-940

Ng, R.T. Semantics, consistency, and query processing of empirical deductive databases; T-KDE Jan-Feb 97 32-49

Ng Wee-Keong, see Wee-Keong Ng, T-KDE Mar-Apr 97 314-328 Nicol, D.M., see Leutenegger, S.T., T-KDE May-Jun 97 410-420

Ooi, B.C., see Chen, C.Y., T-KDE Nov-Dec 97 1005-1011 Ozsoyoglu, Z.M., see Zhang, X., T-KDE Nov-Dec 97 894-910

Palopoli, L., and R. Torlone. Generalized production rules as a basis for integrating active and deductive databases; T-KDE Nov-Dec 97 848-862

Paraboschi, S., see Fraternali, P., T-KDE Jan-Feb 97 173-178
Park, J.S., and V. Sridhar. Probabilistic model and optimal reorganization of

B⁺-tree with physical clustering; *T-KDE Sep-Oct* 97 826-832 **Park Jong Soo**, see Jong Soo Park, *T-KDE Sep-Oct* 97 813-825 **Parzen**, M.I., see Hayes, C.C., *T-KDE Nov-Dec* 97 838-847 **Payne**, T.R., P. Edwards, and C.L. Green. Experience with rule induction and

k-nearest neighbor methods for interface agents that learn; T-KDE Mar-Apr 97 329-335

Petrakis, E.G.M., and A. Faloutsos. Similarity searching in medical image databases; T-KDE May-Jun 97 435-447
 Po Wong Kit, see Doan, K.P.V., T-KDE Sep-Oct 97 731-746
 Pramanik, S., and W.R. Tout. The NUMA with clusters of processors for parallel join; T-KDE Jul-Aug 97 653-660

Pu, C., see Kun-Lung Wu, T-KDE Mar-Apr 97 262-274

Q

Qian Xiaolei, see Xiaolei Qian, T-KDE Mar-Apr 97 292-301

Ramaswamy, M., S. Sarkar, and Ye-Sho Chen. Using directed hypergraphs to verify rule-based expert systems; T-KDE Mar-Apr 97 221-237 Ramesh, R., and Weidong Chen. Implementation of tabled evaluation with

delaying in Prolog; T-KDE Jul-Aug 97 559-574

Ramirez, R.G., see Kulkarni, U.R., T-KDE Sep-Oct 97 798-812

Ravishankar, C.V., see Wee-Keong Ng, T-KDE Mar-Apr 97 314-328

Ra Young-Gook, see Young-Gook Ra, T-KDE Jul-Aug 97 600-624

Rosenwald, G.W., and Chen-Ching Liu. Rule-based system validation

through automatic identification of equivalence classes; T-KDE Jan-Feb 97 24-31

Rossi, G., see Leone, N., T-KDE Jul-Aug 97 539-558 Rullo, P., see Leone, N., T-KDE Jul-Aug 97 539-558 Rundensteiner, E.A., see Young-Gook Ra, T-KDE Jul-Aug 97 600-624 Rundensteiner, E.A., see Zhou, L., T-KDE Nov-Dec 97 956-977

Rush, R., and W.A. Wallace. Elicitation of knowledge from multiple experts using network inference; T-KDE Sep-Oct 97 688-696

Sharman, N., see Moffat, A., T-KDE Mar-Apr 97 302-313

Shekhar, S., and Duen-Ren Liu. CCAM: a connectivity-clustered access method for networks and network computations; T-KDE Jan-Feb 97 102-119

Shian-Shyong Tsang, see Tzung-Pai Hong, T-KDE Mar-Apr 97 336-340
Shieh Shiuh-Pyng, see Shiuh-Pyng Shieh, T-KDE Jul-Aug 97 661-667
Shin, K.G., see Zhou, L., T-KDE Nov-Dec 97 956-977
Shiuh-Pyng Shieh, and V.D. Gligor. On a pattern-oriented model for intrusion detection; T-KDE Jul-Aug 97 661-667

Siegelmann, H.T., see Frieder, O., T-KDE Jul-Aug 97 640-642 Simmons, D.B., see Fujihara, H., T-KDE Far-Apr 97 209-220

Soo Park Jong, see Jong Soo Park, T-KDE Sep-Oct 97 813-825 Spooner, D.L. Guest editor's introduction: Research surveys on building systems with knowledge and data engineering techniques [special section intro.]; T-KDE Sep-Oct 97 673-674

Sridhar, **V**., see Park, J.S., *T-KDE Sep-Oct 97* 826-832 **Suen**, **C.Y**., see Tang, Y.Y., *T-KDE Sep-Oct 97* 747-762

Tang, Y.Y., Hong Ma, Dihua Xi, Xiaogang Mao, and C.Y. Suen. Modified fractal signature (MFS): a new approach to document analysis for automatic knowledge acquisition; T-KDE Sep-Oct 97 747-762

Tansel, A.U., and E. Tin. The expressive power of temporal relational query languages; *T-KDE Jan-Feb* 97 120-134

Tansel, A.U. Temporal relational data model; T-KDE May-Jun 97 464-479 Terenziani, P. Integrating calendar dates and qualitative temporal constraints in the treatment of periodic events; T-KDE Sep-Oct 97 763-783

Thomasian, A. A performance comparison of locking methods with limited wait depth; *T-KDE May-Jun 97* 421-434 **Tin, E.**, see Tansel, A.U., *T-KDE Jan-Feb 97* 120-134

Torlone, R., see Palopoli, L., T-KDE Nov-Dec 97 848-862
Tout, W.R., see Pramanik, S., T-KDE Jul-Aug 97 653-660
Triantafyllos, G., see Vassiliadis, S., T-KDE Jul-Aug 97 646-652
Trickey, H., see Griffin, T., T-KDE May-Jun 97 508-511

Tsang Shian-Shyong, see Tzung-Pai Hong, T-KDE Mar-Apr 97 336-340 Tzung-Pai Hong, and Shian-Shyong Tsang. A generalized version space learning algorithm for noisy and uncertain data; T-KDE Mar-Apr 97 336-340

Vaishnavi, V.K., G.C. Buchanan, and W.L. Kuechler, Jr. A data/knowledge paradigm for the modeling and design of operations support systems;

T-KDE Mar-Apr 97 275-291

Varman, P.J., and R.M. Verma. An efficient multiversion access structure;

T-KDE May-Jun 97 391-409

Vassiliadis, S., G. Triantafyllos, and W. Kobrosly. Establishing the relevancy of the bookkeeping libraries to the functional testing of computer

implementations; T-KDE Jul-Aug 97 646-652 Verma, R.M., see Varman, P.J., T-KDE May-Jun 97 391-409 Viswanathan, S., see Imielinski, T., T-KDE May-Jun 97 353-372

Wagner, C., see Goldstein, R.C., T-KDE Jan-Feb 97 186-192
Wai Chun Hon, see Hon Wai Chun, T-KDE Jul-Aug 97 625-639
Wallace, W.A., see Rush, R., T-KDE Sep-Oct 97 688-696
Wang, Y., see Wong, A.K.C., T-KDE Nov-Dec 97 877-893
Wee-Keong Ng, and C.V. Ravishankar. Block-oriented compression techniques for large statistical databases; T-KDE Mar-Apr 97 314-328
Weidong Chen, see Ramesh, R., T-KDE Jul-Aug 97 559-574
Weidong Chen, Programming with logical queries, bulk undates, and

Weidong Chen, See Kallesh, K., T-RDE Jul-Aug 97 539-574
Weidong Chen Programming with logical queries, bulk updates, and hypothetical reasoning; T-KDE Jul-Aug 97 587-599
Wierenga, B., see Dutta, S., T-KDE Nov-Dec 97 911-922
Wolfe, V.F., see DiPippo, L.C., T-KDE Jan-Feb 97 135-147
Wong, A.K.C., and Y. Wang. High-order pattern discovery from discrete-valued data; T-KDE Nov-Dec 97 877-893
Wong Kit Pages Doop K B.V. T. KDE See Oct 97 771 746

Wong Kit Po, see Doan, K.P.V., T-KDE Sep-Oct 97 731-746

Wu, J.-K. Content-based indexing of multimedia databases; T-KDE Nov-Dec 97 978-989

Wu Kun-Lung, see Kun-Lung Wu, T-KDE Mar-Apr 97 262-274

Xiaogang Mao, see Tang, Y.Y., T-KDE Sep-Oct 97747-762 Xiaolei Qian, and T.F. Lunt. A semantic framework of the multilevel secure relational model; T-KDE Mar-Apr 97 292-301

Xi Dihua, see Tang, Y.Y., T-KDE Sep-Oct 97 747-762

Y

Ye-In Chang, and C.-I. Lee. Alternating hashing for expansible files; T-KDE Jan-Feb 97 179-185

Ye-Sho Chen, see Ramaswamy, M., T-KDE Mar-Apr 97 221-237

Young-Gook Ra, and E.A. Rundensteiner. A transparent schema-evolution system based on object-oriented view technology; T-KDE Jul-Aug 97 600-624

Yu, P.S., see Kun-Lung Wu, T-KDE Mar-Apr 97 262-274 Yu, P.S., see Ming-Syan Chen, T-KDE May-Jun 97 384-390 Yu, P.S., see Jong Soo Park, T-KDE Sep-Oct 97 813-825

Zhang, X., and Z.M. Ozsoyoglu. Implication and referential constraints: A new formal reasoning; T-KDE Nov-Dec 97 894-910

Zhou, L., E.A. Rundensteiner, and K.G. Shin. Schema evolution of an object-oriented real-time database system for manufacturing automation; T-KDE Nov-Dec 97 956-977

Zicari, R., see Ling Liu, T-KDE Jan-Feb 97 50-67 Zobel, J., see Moffat, A., T-KDE Mar-Apr 97 302-313

SUBJECT INDEX

Algebra; cf. Boolean algebra

Algorithms

learning implication networks from empirical data, algm. and Monte-Carlo simul.-based validation. Liu, J., +, T-KDE Nov-Dec 97 990-1004

Algorithms; cf. Genetic algorithms; Parallel algorithms Architecture

intell. critic syst. for architectural design. Hon Wai Chun, +, T-KDE Jul-Aug 97 625-639 Artificial intelligence

case-based reasoning systs., from automation to decision-aiding and simul. Dutta, S., +, T-KDE Nov-Dec 97 911-922 R-MINI, iter. approach for generating min. rules from examples. Se June Hong, T-KDE Sep-Oct 97 709-717

Artificial intelligence; cf. Cooperative systems; Decision support systems;

Intelligent systems; Knowledge based systems; Knowledge representation; Learning systems

Automation; cf. Design automation; Manufacturing automation

B

Bayes procedures

learning implication networks from empirical data, algm. and Monte-Carlo simul.-based validation. Liu, J., +, T-KDE Nov-Dec 97 990-1004

Belief maintenance

learning implication networks from empirical data, algm. and Monte-Carlo simul.-based validation. Liu, J., +, T-KDE Nov-Dec 97 990-1004

Biomedical computing

INC2.5 incremental concept form. syst., learning, predict class. Hadzikadic, M., +, T-KDE Jan-Feb 97 168-173 similarity searching in med. image databases. Petrakis, E.G.M., +, T-KDE May-Jun 97 435-447

Boolean algebra

Boolean similarity measures for resource discovery. Li, S.-H., +, T-KDE Nov-Dec 97 863-876

Cache memories

set difference views, incremental computation. Baekgaard, L., +, T-KDE Mar-Apr 97 251-261

Case based reasoning

analogous software components reuse us formal methods. Cheng, B.H.C., T-KDE Mar-Apr 97 341-349

case-based reasoning systs., from automation to decision-aiding and simul. Dutta, S., +, T-KDE Nov-Dec 97 911-922

CD-ROMs

tertiary storage systs., dismountable media mgt. Ford, D.A., T-KDE Mar-Apr 97 350-351

Cognitive science; cf. Belief maintenance

Combinatorial mathematics; cf. Graph theory

Complexity theory

act. database integrity constraint maint., prod. rule ordering and selection, complexity and heuristic soln. Fraternali, P., +, T-KDE Jan-Feb 97

framework for integrat, calendar dates and qualitat, temporal constraints in treatment of periodic events. Terenziani, P., T-KDE Sep-Oct 97 763-783

modified fractal signature, document anal. approach for automatic knowledge acquisition. *Tang, Y.Y., + , T-KDE Sep-Oct 97 747-762*

rule-based ES, verification, directed hypergraphs. Ramaswamy, M., +, T-KDE Mar-Apr 97 221-237

Computational geometry

n-dimens. quadtree decomp. for arbitrary hyperrectangles. Faloutsos, C., + , T-KDE May-Jun 97 373-383

Computer applications; cf. Biomedical computing; Design automation; Manufacturing automation

Computer fault tolerance

functional testing of computer implement., bookkeeping libraries. Vassiliadis, S., +, T-KDE Jul-Aug 97 646-652

Computer fault tolerance; cf. System recovery

Computer input-output

stat. databases, large, block-oriented compression techs. Wee-Keong Ng. + , T-KDE Mar-Apr 97 314-328 Computer integrated manufacturing

form-based natural lang. front end for CIM database. Adam, N.R., +, T-KDE Mar-Apr 97 238-250

Computer languages; cf. Database languages; Logic programming languages

Computer networks; cf. Internet; Wireless LAN

Computer power supplies

wireless commun. networks, data organization for low power consumption. Imielinski, T., +, T-KDE May-Jun 97 353-372

Computers; cf. Microcomputers

Computer security

pattern-oriented model for intrusion detect. Shiuh-Pyng Shieh, +, T-KDE Jul-Aug 97 661-667

Computer testing

functional testing of computer implement., bookkeeping libraries. Vassiliadis, S., +, T-KDE Jul-Aug 97 646-652

Computer viruses

obj. oriented systs., inform. flow control. Samarati, P., +, T-KDE Jul-Aug 97 524-538

Concurrency control

multiversion locking, indexing struct., perform. eval. Bober, P.M., +, T-KDE Jan-Feb 97 68-84

Concurrency control; cf. Database concurrency operations

Cooperative systems

reusable agents, cooperative search, meta-inform. sharing. Lander, S.E., + , T-KDE Mar-Apr 97 193-208

strategic reasoning under trade-offs between action costs and advantages. Mussi, S., T-KDE Nov-Dec 97 923-940

Cybernetics; cf. Artificial intelligence

D

Database concurrency operations

epsilon serializability, divergence control algms. Kun-Lung Wu, + , T-KDE Mar-Apr 97 262-274

locking methods with limited wait depth, perform. comparison. Thomasian, A., T-KDE May-Jun 97 421-434

multiple hash tables for concurrency control. Ming-Syan Chen, +, T-KDE May-Jun 97 384-390

obj.-based semantic real-time concurrency control, bounded imprecision. DiPippo, L.C., +, T-KDE Jan-Feb 97 135-147

Database concurrency operations; cf. Distributed database concurrency operations

Database languages

transactions and updates in deductive databases. Montesi, D., +, T-KDE Sep-Oct 97 784-797

Database languages; cf. Query languages

Database management systems

bulk-loading of gridfiles. Leutenegger, S.T., + , T-KDE May-Jun 97 410-420

dyn. document databases, text compression. Moffat, A., + , T-KDE Mar-Apr 97 302-313

functional testing of computer implement., bookkeeping libraries. Vassiliadis, S., + , T-KDE Jul-Aug 97 646-652

generalized production rules as basis for integrating active and deductive databases. *Palopoli*, L., +, T-KDE Nov-Dec 97 848-862

modified fractal signature, document anal. approach for automatic knowledge acquisition. Tang, Y.Y., +, T-KDE Sep-Oct 97 747-762

Database management systems; cf. Database concurrency operations; Database query processing; Distributed database management systems

Database query processing

Boolean similarity measures for resource discovery. Li, S.-H., +, T-KDE Nov-Dec 97 863-876

CIM database, form-based natural lang. front end. Adam, N.R., +, T-KDE Mar-Apr 97 238-250

deductive environ. for dealing, objs. and nonmonotonic reasoning. Leone, N., + , T-KDE Jul-Aug 97 539-558

domain knowledge based substructure discovery. Djoko, S., +, T-KDE Jul-Aug 97 575-586

empirical deductive DBMSs, semantics, consistency and query proc. Ng, R.T., T-KDE Jan-Feb 97 32-49

implication and referential constraints. Zhang, X., +, T-KDE Nov-Dec 97 894-910

independently updated views. Kulkarni, U.R., +, T-KDE Sep-Oct 97 798-812

multiversion access struct. Varman, P.J., +, T-KDE May-Jun 97 391-409 multiversion locking, indexing struct., perform. eval. Bober, P.M., +, T-KDE Jan-Feb 97 68-84

obj.-oriented databases, cost fns. modelling. Bertino, E., + , T-KDE May-Jun 97 500-508

partial match retrieval, k-ary MKH files, optimal bucket allocation. Chen, C.Y., +, T-KDE Jan-Feb 97 148-160

polymorphic reuse mechanisms in schema evol. in obj. oriented DBMS. Ling Liu, +, T-KDE Jan-Feb 97 50-67 prog. with logical queries, bulk updates and hypothetical reasoning.

Weidong Chen, T-KDE Jul-Aug 97 587-599 seq. trees and tokens for database mgt. Goldstein, R.C., +, T-KDE Jan-Feb 97 186-192

set difference views, incremental computation. Baekgaard, L., +, T-KDE Mar-Apr 97 251-261

similarity searching in med. image databases. Petrakis, E.G.M., +, T-KDE May-Jun 97 435-447

stat. databases, cell suppression via marginal total suppression. Chu, P.C., T-KDE Jul-Aug 97 513-523

temporal relational query langs., expressive power. Tansel, A.U., +, T-KDE Jan-Feb 97 120-134

Database query processing; cf. Distributed database query processing Database searching

similarity searching in med. image databases. Petrakis, E.G.M., +, T-KDE May-Jun 97 435-447

Database searching; cf. Distributed database searching

Database systems

assoc. rule mining, hash-based method, transaction trimming. Jong Soo Park, +, T-KDE Sep-Oct 97 813-825

high-order pattern discovery from discrete-valued data. Wong, A.K.C., +, T-KDE Nov-Dec 97 877-893

research surveys on building systems with knowledge and data engineering techniques (special section). T-KDE Sep-Oct 97 673-708

research surveys on building systems with knowledge and data engineering techniques, special section intro. Spooner, D.L., T-KDE Sep-Oct 97 673-674

seq. trees and tokens for database mgt. Goldstein, R.C., +, T-KDE Jan-Feb 97 186-192

stat. databases, large, block-oriented compression techs. Wee-Keong Ng, + , T-KDE Mar-Apr 97 314-328

Database systems; cf. Deductive databases; Image databases; Multimedia databases; Object oriented databases; Relational databases; Statistical databases; Temporal databases

Data compression

domain knowledge based substructure discovery. Djoko, S., +, T-KDE Jul-Aug 97 575-586

dyn. document databases, text compression. Moffat, A., +, T-KDE Mar-Apr 97 302-313

stat. databases, large, block-oriented compression techs. Wee-Keong Ng, + , T-KDE Mar-Apr 97 314-328

Data flow analysis

pattern-oriented model for intrusion detect. Shiuh-Pyng Shieh, +, T-KDE Jul-Aug 97 661-667

Data handling

selection via discretization. Huan Liu, +, T-KDE Jul-Aug 97 642-645

Data handling; cf. Document handling; Exception handling Data mining; cf. Database systems

Data models

interval data mgt., SQL extension. Lorentzos, N.A., +, T-KDE May-Jun 97 480-499

schema evol. of object-oriented real-time database syst. for mfg. automation. Zhou, L., +, T-KDE Nov-Dec 97 956-977

temporal relational data model. Tansel, A.U., T-KDE May-Jun 97 464-479 temporal relational query langs., expressive power. Tansel, A.U., +, T-KDE Jan-Feb 97 120-134

Data processing; cf. Manufacturing data processing

Data security

authorization/revocation in obj.-oriented databases. Majetic, I., +, T-KDE Jul-Aug 97 668-672

multilevel secure distributed databases, kernelized archit. Atluri, V., +, T-KDE Sep-Oct 97 697-708

multilevel secure relational model, semantic framework. Xiaolei Qian, +,

T-KDE Mar-Apr 97 292-301 relational databases, extended authorization model. Bertino, E., +, T-KDE

Jan-Feb 97 85-101 stat. databases, cell suppression via marginal total suppression. Chu, P.C., T-KDE Jul-Aug 97 513-523

Data security; cf. Computer viruses

Data structures

authorization/revocation in obj.-oriented databases. Majetic, I., +, T-KDE Jul-Aug 97 668-672

bulk-loading of gridfiles. Leutenegger, S.T., + , T-KDE May-Jun 97 410-420

domain knowledge based substructure discovery. Djoko, S., +, T-KDE Jul-Aug 97 575-586

vireless commun. networks, data organization for low power consumption. *Imielinski*, T., +, T-KDE May-Jun 97 353-372 wireless commun.

Data structures; cf. Spatial data structures; Tree data structures

Decision-making; cf. Pattern classification; Sequential decision procedures **Decision support systems**

architectural design, intell. critic syst. Hon Wai Chun, +, T-KDE Jul-Aug 97 625-639

case-based reasoning systs., from automation to decision-aiding and simul. Dutta, S., + , T-KDE Nov-Dec 97 911-922

Deductive databases

act. database integrity constraint maint., prod. rule ordering and selection, complexity and heuristic soln. Fraternali, P., +, T-KDE Jan-Feb 97 173-178

assoc. rule mining, hash-based method, transaction trimming. Jong Soo Park, + , T-KDE Sep-Oct 97 813-825

domain knowledge based substructure discovery. Djoko, S., +, T-KDE Jul-Aug 97 575-586

empirical deductive DBMSs, semantics, consistency and query proc. Ng, R.T., T-KDE Jan-Feb 97 32-49

financial risk mgt., knowledge repository design. Benaroch, M., T-KDE

Jan-Feb 97 161-167 generalized production rules as basis for integrating active and deductive

databases. Palopoli, L., +, T-KDE Nov-Dec 97 848-862 objs. and nonmonotonic reasoning, deductive environ. Legne, N., +, T-KDE Jul-Aug 97 539-558

operations support systs., data/knowledge paradigm. Vaishnavi, V.K., +, T-KDE Mar-Apr 97 275-291

prog. with logical queries, bulk updates and hypothetical reasoning. Weidong Chen, T-KDE Jul-Aug 97 587-599

transactions and updates in deductive databases. Montesi, D., +, T-KDE Sep-Oct 97 784-797

Design automation

architectural design, intell. critic syst. Hon Wai Chun, +, T-KDE Jul-Aug 97 625-639

intell. critic syst. for architectural design. Hon Wai Chun, + , T-KDE Jul-Aug 97 625-639

Design automation; cf. Intelligent design assistants

Directed graphs

act. database integrity constraint maint., prod. rule ordering and selection, complexity and heuristic soln. Fraternali, P., +, T-KDE Jan-Feb 97

pattern-oriented model for intrusion detect. Shiuh-Pyng Shieh, +, T-KDE Jul-Aug 97 661-667

rule-based ES, verification, directed hypergraphs. Ramaswamy, M., +, T-KDE Mar-Apr 97 221-237

Distributed computing; cf. Internet

Distributed database concurrency operations

multilevel secure distributed databases, kernelized archit. Atluri, V., +, T-KDE Sep-Oct 97 697-708

Distributed database management systems

NUMA, proc. clusters for parallel join. Pramanik, S., +, T-KDE Jul-Aug 97 653-660

Distributed database query processing

AM, connectivity clustered access method for network computations. Shekhar, S., +, T-KDE Jan-Feb 97 102-119

query optim. in multidatabase systs. considering schema conflicts. Lee, C., + , T-KDE Nov-Dec 97 941-955

Distributed database searching

AM, connectivity clustered access method for network computations. Shekhar, S., +, T-KDE Jan-Feb 97 102-119

Document handling

dyn. document databases, text compression. Moffat, A., +, T-KDE Mar-Apr 97 302-313

modified fractal signature, document anal. approach for automatic knowledge acquisition. Tang, Y.Y., +, T-KDE Sep-Oct 97 747-762

E

Economics; cf. Costs

Electronic mail

interface agents that learn, rule induction and k-nearest neighbor methods. Payne, T.R., +, T-KDE Mar-Apr 97 329-335

Engineering; cf. Mechanical engineering

Error analysis

functional testing of computer implement., bookkeeping libraries. Vassiliadis, S., +, T-KDE Jul-Aug 97 646-652

rule-based ES, verification, directed hypergraphs. Ramaswamy, M., + T-KDE Mar-Apr 97 221-237

Exception handling

deductive environ. for dealing, objs. and nonmonotonic reasoning. Leone, N., + , T-KDE Jul-Aug 97 539-558

Expert systems

research surveys on building systems with knowledge and data engineering techniques (special section). T-KDE Sep-Oct 97 673-708

research surveys on building systems with knowledge and data engineering techniques, special section intro. Spooner, D.L., T-KDE Sep-Oct 97 673-674

rule-based ES, verification, directed hypergraphs. Ramaswamy, M., +, T-KDE Mar-Apr 97 221-237

seq. decision models for ES optim. Mookerjee, V.S., +, T-KDE Sep-Oct 97 675-687

strategic reasoning under trade-offs between action costs and advantages. Mussi, S., T-KDE Nov-Dec 97 923-940

Expert systems; cf. Intelligent design assistants

Explanation

SHAPES, search heuristics learning in under-constrained optim. problems. Doan, K.P.V., +, T-KDE Sep-Oct 97 731-746

Fault tolerance; cf. Computer fault tolerance

Feature extraction

contextual inform. for ranking and discretization. Se June Hong, T-KDE Sep-Oct 97 718-730

discretization for selection. Huan Liu, +, T-KDE Jul-Aug 97 642-645 interface agents that learn, rule induction and k-nearest neighbor methods. Payne, T.R., +, T-KDE Mar-Apr 97 329-335

File systems

assoc. rule mining, hash-based method, transaction trimming. Jong Soo Park, + , T-KDE Sep-Oct 97 813-825

bulk-loading of gridfiles. Leutenegger, S.T., + , T-KDE May-Jun 97 410-420

expansible files, alternating hashing. Ye-In Chang, +, T-KDE Jan-Feb 97 179-185

multiple hash tables for concurrency control. Ming-Syan Chen, +, T-KDE May-Jun 97 384-390

partial match retrieval, k-ary MKH files, optimal bucket allocation. Chen, C.Y., +, T-KDE Jan-Feb 97 148-160

Financial data processing

risk mgt., knowledge repository design. Benaroch, M., T-KDE Jan-Feb 97 161-167

G

Genetic algorithms

interface agents that learn, rule induction and k-nearest neighbor methods. Payne, T.R., +, T-KDE Mar-Apr 97 329-335

multiprocessor document allocation, genetic algm. approach. Frieder, O., + , T-KDE Jul-Aug 97 640-642

Geometry; cf. Computational geometry

Graphical user interfaces

interface agents that learn, rule induction and k-nearest neighbor methods. Payne, T.R., +, T-KDE Mar-Apr 97 329-335

Graph theory

digital syst. requirements capture and anal., conceptual graphs. Cyre, W.R., T-KDE Jan-Feb 97 8-23

Graph theory; cf. Directed graphs; Tree data structures

H

High-level languages; cf. Logic programming languages

Image analysis

content-based indexing of multimedia databases. Wu, J.-K., T-KDE Nov-Dec 97 978-989

Image databases

AM, connectivity clustered access method for network computations. Shekhar, S., +, T-KDE Jan-Feb 97 102-119

content-based indexing of multimedia databases. Wu, J.-K., T-KDE Nov-Dec 97 978-989

interval data mgt., SQL extension. Lorentzos, N.A., +, T-KDE May-Jun 97 480-499

n-dimens. quadtree decomp. for arbitrary hyperrectangles. Faloutsos, C., + , T-KDE May-Jun 97 373-383

similarity searching in med. image databases. Petrakis, E.G.M., +, T-KDE May-Jun 97 435-447

content-based indexing of multimedia databases. Wu, J.-K., T-KDE Nov-Dec 97 978-989

efficient scheduling of page access in index-based join proc. Chen, C.Y., +, T-KDE Nov-Dec 97 1005-1011

multiversion locking, indexing struct., perform. eval. Bober, P.M., +, $T\text{-}KDE\ Jan\text{-}Feb\ 97\ 68\text{-}84$

wireless commun. networks, data organization for low power consumption. *Imielinski, T., + , T-KDE May-Jun 97* 353-372

Inference mechanisms

empirical deductive DBMSs, semantics, consistency and query proc. Ng, R.T., T-KDE Jan-Feb 97 32-49

financial risk mgt., knowledge repository design. Benaroch, M., T-KDE Jan-Feb 97 161-167

implication and referential constraints. Zhang, X., +, T-KDE Nov-Dec 97 894-910

learning implication networks from empirical data, algm. and Monte-Carlo simul.-based validation. Liu, J., +, T-KDE Nov-Dec 97 990-1004

multilevel secure relational model, semantic framework. Xiaolei Qian, +, T-KDE Mar-Apr 97 292-301

multiple expert influence diag., knowledge elicitation from multiple experts, network inference. Rush, R., +, T-KDE Sep-Oct 97 688-696

operations support systs., data/knowledge paradigm. Vaishnavi, V.K., +, T-KDE Mar-Apr 97 275-291

strategic reasoning under trade-offs between action costs and advantages. Mussi, S., T-KDE Nov-Dec 97 923-940

Inference mechanisms; cf. Case based reasoning; Nonmonotonic reasoning; Temporal reasoning

Information retrieval

Boolean similarity measures for resource discovery. Li, S.-H., +, T-KDE Nov-Dec 97 863-876

content-based indexing of multimedia databases. Wu, J.-K., T-KDE Nov-Dec 97 978-989

interface agents that learn, rule induction and k-nearest neighbor methods. Payne, T.R., +, T-KDE Mar-Apr 97 329-335

knowledge conceptualization tool. Fujihara, H., +, T-KDE Mar-Apr 97

multiprocessor document allocation, genetic algm. approach. Frieder, O., + , T-KDE Jul-Aug 97 640-642

Prolog for tabled eval., delaying. Ramesh, R., +, T-KDE Jul-Aug 97 559-574

Inheritance

authorization/revocation in obj.-oriented databases. Majetic, I., +, T-KDE Jul-Aug 97 668-672

deductive environ. for dealing, objs. and nonmonotonic reasoning. Leone, N., +, T-KDE Jul-Aug 97 539-558

obj.-oriented databases, cost fns. modelling. Bertino, E., +, T-KDE May-Jun 97 500-508

Intelligent design assistants

architectural design, intell. critic syst. Hon Wai Chun, +, T-KDE Jul-Aug 97 625-639

reusable agents, cooperative search, meta-inform. sharing. Lander, S.E., + , T-KDE Mar-Apr 97 193-208

Intelligent systems

knowledge conceptualization tool. Fujihara, H., +, T-KDE Mar-Apr 97 209-220

Internet

Boolean similarity measures for resource discovery. Li, S.-H., +, T-KDE Nov-Dec 97 863-876

interface agents that learn, rule induction and k-nearest neighbor methods. Payne, T.R., +, T-KDE Mar-Apr 97 329-335

multiple expert influence diag., knowledge elicitation from multiple experts, network inference. Rush, R., +, T-KDE Sep-Oct 97 688-696

Iterative methods

stat. databases, cell suppression via marginal total suppression. Chu, P.C., T-KDE Jul-Aug 97 513-523

K

Knowledge acquisition

assoc. rule mining, hash-based method, transaction trimming. Jong Soo Park, +, T-KDE Sep-Oct 97 813-825

conceptualization tool. Fujihara, H., +, T-KDE Mar-Apr 97 209-220 digital syst. requirements capture and anal., conceptual graphs. Cyre, W.R., T-KDÉ Jan-Feb 97 8-23

domain knowledge based substructure discovery. Djoko, S., +, T-KDE Jul-Aug 97 575-586

INC2.5 incremental concept form, syst., learning, predict class. Hadzikadic, M., +, T-KDE Jan-Feb 97 168-173

modified fractal signature, document anal. approach for automatic knowledge acquisition. Tang, Y.Y., +, T-KDE Sep-Oct 97 747-762

multiple expert influence diag., knowledge elicitation from multiple experts, network inference. Rush, R., +, T-KDE Sep-Oct 97 688-696 rule-based ES, verification, directed hypergraphs. Ramaswamy, M., +, T-KDE Mar-Apr 97 221-237

seq. decision models for ES optim. Mookerjee, V.S., +, T-KDE Sep-Oct 97 675-687

SHAPES, search heuristics learning in under-constrained optim. problems. Doan, K.P.V., +, T-KDE Sep-Oct 97 731-746

Knowledge based systems

automatic ident. of equivalence classes, rule based syst. validation. Rosenwald, G.W., + , T-KDE Jan-Feb 97 24-31

case-based reasoning systs., from automation to decision-aiding and simul. Dutta, S., +, T-KDE Nov-Dec 97 911-922

conceptualization tool. Fujihara, H., +, T-KDE Mar-Apr 97 209-220 contextual inform. for ranking and discretization. Se June Hong, T-KDE Sep-Oct 97 718-730

financial risk mgt., knowledge repository design. Benaroch, M., T-KDE Jan-Feb 97 161-167

multiple expert influence diag., knowledge elicitation from multiple experts, network inference. Rush, R., +, T-KDE Sep-Oct 97 688-696 QUEM achievement test for knowledge-based systs. Hayes, C.C., +, T-KDE Nov-Dec 97 838-847

reusable agents, cooperative search, meta-inform. sharing. Lander, S.E., + , T-KDE Mar-Apr 97 193-208

R-MINI, iter. approach for generating min. rules from examples. Se June Hong, T-KDE Sep-Oct 97 709-717

SHAPES, search heuristics learning in under-constrained optim. problems. *Doan, K.P.V., +, T-KDE Sep-Oct 97 731-746*

Knowledge based systems; cf. Expert systems

Knowledge engineering

automatic ident. of equivalence classes, rule based syst. validation. Rosenwald, G.W., +, T-KDE Jan-Feb 97 24-31

rule-based ES, verification, directed hypergraphs. Ramaswamy, M., +, T-KDE Mar-Apr 97 221-237

Knowledge engineering; cf. Belief maintenance; Explanation Knowledge representation

architectural design, intell. critic syst. Hon Wai Chun, +, T-KDE Jul-Aug 97 625-639

deductive environ, for dealing, objs. and nonmonotonic reasoning. *Leone*, N., +, T-KDE Jul-Aug 97 539-558

financial risk mgt., knowledge repository design. Benaroch, M., T-KDE Jan-Feb 97 161-167

framework for integrat. calendar dates and qualitat. temporal constraints in treatment of periodic events. Terenziani, P., T-KDE Sep-Oct 97 763-783

operations support systs., data/knowledge paradigm. Vaishnavi, V.K., \pm , T-KDE Mar-Apr 97 275-291

rule-based ES, verification, directed hypergraphs. Ramaswamy, M., +, T-KDE Mar-Apr 97 221-237

Knowledge representation; cf. Semantic networks

Languages

CIM database, form-based natural lang. front end. Adam, N.R., +, T-KDE Mar-Apr 97 238-250

Languages; cf. Database languages; Logic programming languages; Natural languages

Learning systems
INC2.5 incremental concept form. syst., learning, predict class.

Hadzikadic, M., +, T-KDE Jan-Feb 97 168-173

interface agents that learn, rule induction and k-nearest neighbor methods. Payne, T.R., +, T-KDE Mar-Apr 97 329-335

learning implication networks from empirical data, algm. and Monte-Carlo simul.-based validation. Liu, J., +, T-KDE Nov-Dec 97 990-1004

R-MINI, iter. approach for generating min. rules from examples. Se June Hong, T-KDE Sep-Oct 97 709-717

selection via discretization. *Huan Liu*, +, *T-KDE Jul-Aug* 97 642-645 SHAPES, search heuristics learning in under-constrained optim. problems. *Doan*, *K.P.V.*, +, *T-KDE Sep-Oct* 97 731-746

version space learning algm. for noisy and uncertain data. Tzung-Pai Hong. +, T-KDE Mar-Apr 97 336-340

Local area networks; cf. Wireless LAN

Logic

default logic, query lang. Cadoli, M., +, T-KDE May-Jun 97 448-463 Logic; cf. Inference mechanisms

Logic programming

prog. with logical queries, bulk updates and hypothetical reasoning. Weidong Chen, T-KDE Jul-Aug 97 587-599

Prolog for tabled eval., delaying. Ramesh, R., + , T-KDE Jul-Aug 97 559-574

Logic programming languages

deductive environ. for dealing, objs. and nonmonotonic reasoning. Leone, N., +, T-KDE Jul-Aug 97 539-558

Logic programming languages; cf. Prolog

M

Machine learning

high-order pattern discovery from discrete-valued data. Wong, A.K.C., +, T-KDE Nov-Dec 97 877-893

Maintenance; cf. Software maintenance

Manufacturing automation

schema evol. of object-oriented real-time database syst. for mfg. automation. Zhou, L., +, T-KDE Nov-Dec 97 956-977

Manufacturing automation; cf. Computer integrated manufacturing

Manufacturing data processing

CIM database, form-based natural lang. front end. Adam, N.R., +, T-KDE Mar-Apr 97 238-250

Marketing

assoc. rule mining, hash-based method, transaction trimming. Jong Soo Park, +, T-KDE Sep-Oct 97 813-825

Mechanical engineering

reusable agents, cooperative search, meta-inform. sharing. Lander, S.E., , T-KDE Mar-Apr 97 193-208

Memories; cf. Cache memories; CD-ROMs

Memory management

tertiary storage systs., dismountable media mgt. Ford, D.A., T-KDE Mar-Apr 97 350-351

Message systems; cf. Electronic mail

Microcomputers

wireless commun. networks, data organization for low power consumption. *Imielinski*, T., +, T-KDE May-Jun 97 353-372

Modeling; cf. Data models; User modeling

Monte Carlo methods

learning implication networks from empirical data, algm. and Monte-Carlo simul.-based validation. Liu, J., +, T-KDE Nov-Dec 97 990-1004

Multidatabase systems; cf. Distributed database systems

Multimedia databases

content-based indexing of multimedia databases. Wu, J.-K., T-KDE Nov-Dec 97 978-989

schema evol. of object-oriented real-time database syst. for mfg. automation. Zhou, L., +, T-KDE Nov-Dec 97 956-977

Multiprocessing

genetic algm. approach, multiprocessor document allocation. Frieder, O., T-KDE Jul-Aug 97 640-642

NUMA, proc. clusters for parallel join. Pramanik, S., +, T-KDE Jul-Aug 97 653-660

N

Natural language interfaces

CIM database, form-based natural lang. front end. Adam, N.R., +, T-KDE Mar-Apr 97 238-250

Natural languages

digital syst. requirements capture and anal., conceptual graphs. Cyre, W.R., T-KDE Jan-Feb 97 8-23

Nonlinear programming; cf. Quadratic programming

Nonmonotonic reasoning

deductive environ. for dealing, objs. and nonmonotonic reasoning. Leone, N., +, T-KDE Jul-Aug 97 539-558 default logic, query lang. Cadoli, M., +, T-KDE May-Jun 97 448-463

Prolog for tabled eval., delaying. Ramesh, R., +, T-KDE Jul-Aug 97

Numerical analysis; cf. Iterative methods; Monte Carlo methods

0

Object oriented databases

authorization/revocation in obj.-oriented databases. Majetic, I., +, T-KDE Jul-Aug 97 668-672

cost fins. modelling for obj.-oriented databases. Bertino, E., + , T-KDE May-Jun 97 500-508

inform. flow control in obj. oriented systs. Samarati, P., + , T-KDE Jul-Aug 97 524-538

polymorphic reuse mechanisms in schema evol. in obj. oriented DBMS.

Ling Liu, +, T-KDE Jan-Feb 97 50-67 schema evol. of object-oriented real-time database syst. for mfg.

automation. Zhou, L., +, T-KDE Nov-Dec 97 956-977 semantic real-time concurrency control, bounded imprecision. DiPippo,

L.C., +, T-KDE Jan-Feb 97 135-147 transparent schema evol. syst., obj. oriented view technol. based. Young-Gook Ra, +, T-KDE Jul-Aug 97 600-624

Object oriented methods

operations support systs., data/knowledge paradigm. Vaishnavi, V.K., +, T-KDE Mar-Apr 97 275-291

Object oriented programming

deductive environ, for dealing, objs. and nonmonotonic reasoning. *Leone*, N., +, T-KDE Jul-Aug 97 539-558

inform. flow control in obj. oriented systs. Samarati, P., +, T-KDE Jul-Aug 97 524-538

Octrees

n-dimens. quadtree decomp. for arbitrary hyperrectangles. Faloutsos, C., + , T-KDE May-Jun 97 373-383

Open systems

obj. oriented systs., inform. flow control. Samarati, P., +, T-KDE Jul-Aug 97 524-538

Optical memories; cf. CD-ROMs

Optimization methods

act. database integrity constraint maint., prod. rule ordering and selection, complexity and heuristic soln. Fraternali, P., +, T-KDE Jan-Feb 97 173-178

query optim. in multidatabase systs. considering schema conflicts. Lee, C., - , T-KDE Nov-Dec 97 941-955

reorganization of B +-tree, phys. clustering. Park, J.S., +, T-KDE Sep-Oct 97 826-832

seq. decision models for ES optim. Mookerjee, V.S., +, T-KDE Sep-Oct 97 675-687

SHAPES, search heuristics learning in under-constrained optim. problems. *Doan, K.P.V., + , T-KDE Sep-Oct 97 731-746*

Optimization methods; cf. Genetic algorithms

P

Parallel algorithms

genetic algm. approach, multiprocessor document allocation. Frieder, O., , T-KDE Jul-Aug 97 640-642

NUMA, proc. clusters for parallel join. Pramanik, S., +, T-KDE Jul-Aug 97 653-660

Parallel processing; cf. Multiprocessing

Parallel programming; cf. Parallel algorithms

Pattern classification

INC2.5 incremental concept form. syst., learning, predict class. Hadzikadic, M., +, T-KDE Jan-Feb 97 168-173 selection via discretization. Huan Liu, +, T-KDE Jul-Aug 97 642-645

Pattern recognition

R-MINI, iter. approach for generating min. rules from examples. Se June Hong, T-KDE Sep-Oct 97 709-717

Power demand

wireless commun. networks, data organization for low power consumption. *Imielinski, T., + , T-KDE May-Jun 97* 353-372

Power supplies; cf. Computer power supplies

Prediction methods

INC2.5 incremental concept form, syst., learning, predict class. Hadzikadic, M., +, T-KDE Jan-Feb 97 168-173

Probability

empirical deductive DBMSs, semantics, consistency and query proc. Ng, R.T., T-KDE Jan-Feb 97 32-49

learning implication networks from empirical data, algm. and Monte-Carlo simul.-based validation. Liu, J., +, T-KDE Nov-Dec 97 990-1004

optimal reorganization of B+-tree, phys. clustering. Park, J.S., +, T-KDE Sep-Oct 97 826-832

Problem-solving

SHAPES, search heuristics learning in under-constrained optim. problems. *Doan, K.P.V., + , T-KDE Sep-Oct* 97 731-746

Process algebra; cf. Relational algebra

Programming; cf. Logic programming; Object oriented programming Prolog

tabled eval., delaying in Prolog. Ramesh, R., + , T-KDE Jul-Aug 97 559-574

Q

Quadratic programming

SHAPES, search heuristics learning in under-constrained optim. problems. Doan, K.P.V., +, T-KDE Sep-Oct 97 731-746

Ouadtrees

n-dimens. quadtree decomp. for arbitrary hyperrectangles. Faloutsos, C., + , T-KDE May-Jun 97 373-383

Ouery languages

default logic, query lang. Cadoli, M., +, T-KDE May-Jun 97 448-463 generalized production rules as basis for integrating active and deductive databases. Palopoli, L., +, T-KDE Nov-Dec 97 848-862

obj.-oriented databases, cost fns. modelling. Bertino, E., +, T-KDE May-Jun 97 500-508

prog. with logical queries, bulk updates and hypothetical reasoning. Weidong Chen, T-KDE Jul-Aug 97 587-599

temporal relational query langs., expressive power. Tansel, A.U., +, T-KDE Jan-Feb 97 120-134

transactions and updates in deductive databases. Montesi, D., +, T-KDE Sep-Oct 97 784-797

R

Radio communication; cf. Wireless LAN Read only memories; cf. CD-ROMs

Real time systems

obj.-based semantic real-time concurrency control, bounded imprecision. DiPippo, L.C., +, T-KDE Jan-Feb 97 135-147

Reasoning; cf. Inference mechanisms

Relational algebra

act. relational expressions, incremental recomputation, improved algm. Griffin, T., +, T-KDE May-Jun 97 508-511

NUMA, proc. clusters for parallel join. Pramanik, S., +, T-KDE Jul-Aug 97 653-660

temporal relational data model. Tansel, A.U., T-KDE May-Jun 97 464-479 temporal relational query langs., expressive power. Tansel, A.U., +, T-KDE Jan-Feb 97 120-134

Relational databases

act. relational expressions, incremental recomputation, improved algm. Griffin, T., +, T-KDE May-Jun 97 508-511

CIM database, form-based natural lang. front end. Adam, N.R., +, T-KDE

Mar-Apr 97 238-250

default logic, query lang. Cadoli, M., +, T-KDE May-Jun 97 448-463 efficient scheduling of page access in index-based join proc. Chen, C.Y., + , T-KDE Nov-Dec 97 1005-1011

extended authorization model for relational databases. Bertino, E., +, $T\text{-KDE Jan-Feb }97\,85\text{-}101$

independently updated views. Kulkarni, U.R., +, T-KDE Sep-Oct 97

798-812 multilevel secure relational model, semantic framework. Xiaolei Qian, +,

T-KDE Mar-Apr 97 292-301 NUMA, proc. clusters for parallel join. Pramanik, S., +, T-KDE Jul-Aug

97 653-660 optimal reorganization of B+-tree, phys. clustering. Park, J.S., +, T-KDE

Sep-Oct 97 826-832 set difference views, incremental computation. Baekgaard, L., +, T-KDE Mar-Apr 97 251-261

temporal relational data model. Tansel, A.U., T-KDE May-Jun 97 464-479 temporal relational query langs., expressive power. Tansel, A.U., \pm , T-KDE Jan-Feb 97 120-134

Resource management

multiprocessor document allocation, genetic algm. approach. Frieder, O., T-KDE Jul-Aug 97 640-642

NUMA, proc. clusters for parallel join. Pramanik, S., +, T-KDE Jul-Aug 97 653-660

Risk analysis

financial risk mgt., knowledge repository design. Benaroch, M., T-KDE Jan-Feb 97 161-167

S

Scheduling

efficient scheduling of page access in index-based join proc. Chen, C.Y., + , T-KDE Nov-Dec 97 1005-1011

Search methods

reusable agents, cooperative search, meta-inform. sharing. Lander, S.E., + , T-KDE Mar-Apr 97 193-208

Search methods; cf. Database searching; Tree searching

Security; cf. Computer security; Data security

Semantic networks

digital syst. requirements capture and anal., conceptual graphs. *Cyre, W.R., T-KDE Jan-Feb 97* 8-23

Sequences

database mgt., seq. trees and tokens. Goldstein, R.C., +, T-KDE Jan-Feb 97 186-192

Sequential decision procedures

ES optim., seq. decision models. Mookerjee, V.S., +, T-KDE Sep-Oct 97 675-687

Simulation

learning implication networks from empirical data, algm. and Monte-Carlo simul.-based validation. Liu, J., +, T-KDE Nov-Dec 97 990-1004

Software; cf. Database management systems

Software engineering; cf. Software requirements and specifications Software maintenance

obj, oriented view technol. based transparent schema evol. syst. Young-Gook Ra, +, T-KDE Jul-Aug 97 600-624

Software metrics

QUEM achievement test for knowledge-based systs. Hayes, C.C., +, T-KDE Nov-Dec 97 838-847

Software performance

assoc. rule mining, hash-based method, transaction trimming. Jong Soo Park, +, T-KDE Sep-Oct 97 813-825

database mgt., seq. trees and tokens. Goldstein, R.C., +, T-KDE Jan-Feb 97 186-192

expansible files, alternating hashing. Ye-In Chang, +, T-KDE Jan-Feb 97

independently updated views. Kulkarni, U.R., + , T-KDE Sep-Oct 97 798-812 multiversion locking, indexing struct., perform. eval. Bober, P.M., +,

T-KDE Jan-Feb 97 68-84 NUMA, proc. clusters for parallel join. Pramanik, S., +, T-KDE Jul-Aug

97 653-660 QUEM achievement test for knowledge-based systs. Hayes, C.C., +,

T-KDE Nov-Dec 97 838-847 wireless commun. networks, data organization for low power

consumption. Imielinski, T., + , T-KDE May-Jun 97 353-372

Software requirements and specifications

analogous software components reuse us formal methods. Cheng, B.H.C., , T-KDE Mar-Apr 97 341-349

digital syst. requirements capture and anal., conceptual graphs. Cyre, W.R., T-KDÉ Jan-Feb 97 8-23

framework for integrat, calendar dates and qualitat, temporal constraints in treatment of periodic events. Terenziani, P., T-KDE Sep-Oct 97 763-783

polymorphic reuse mechanisms in schema evol. in obj. oriented DBMS. Ling Liu, +, T-KDE Jan-Feb 97 50-67

transactions and updates in deductive databases. Montesi, D., +, T-KDE Sep-Oct 97 784-797

Software reusability

agents, cooperative search, meta-inform. sharing. Lander, S.E., +, T-KDE Mar-Apr 97 193-208

analogous software components reuse us formal methods. *Cheng, B.H.C.,* + , *T-KDE Mar-Apr* 97 341-349 polymorphic reuse mechanisms in schema evol. in obj. oriented DBMS.

Ling Liu, + , T-KDE Jan-Feb 97 50-67

Software testing QUEM achievement test for knowledge-based systs. Hayes, C.C., +,

T-KDE Nov-Dec 97 838-847

Software tools

CIM database, form-based natural lang. front end. *Adam, N.R.,* + , *T-KDE Mar-Apr* 97 238-250

Software verification and validation

obj. oriented systs., inform. flow control. Samarati, P., +, T-KDE Jul-Aug 97 524-538

rule based syst. validation, automatic ident. of equivalence classes. Rosenwald, G.W., +, T-KDE Jan-Feb 97 24-31

Spatial data structures

interval data mgt., SQL extension. Lorentzos, N.A., + , T-KDE May-Jun 97 480-499

Special issues and sections

research surveys on building systems with knowledge and data engineering techniques (special section). T-KDE Sep-Oct 97 673-708

research surveys on building systems with knowledge and data engineering techniques, special section intro. Spooner, D.L., T-KDE Sep-Oct 97 673-674

Statistical databases

cell suppression via marginal total suppression in stat. databases. Chu, P.C., T-KDE Jul-Aug 97 513-523

large stat. databases, block-oriented compression techs. Wee-Keong Ng, + , T-KDE Mar-Apr 97 314-328

Statistics

high-order pattern discovery from discrete-valued data. Wong, A.K.C., +, T-KDE Nov-Dec 97 877-893

optimal reorganization of B⁺-tree, phys. clustering. *Park, J.S.,* + , *T-KDE Sep-Oct 97* 826-832

pattern-oriented model for intrusion detect. Shiuh-Pyng Shieh, +, T-KDE Jul-Aug 97 661-667

System analysis and design

digital syst. requirements capture and anal., conceptual graphs. *Cyre, W.R., T-KDE Jan-Feb 97* 8-23

System recovery

act. database integrity constraint maint., prod. rule ordering and selection, complexity and heuristic soln. Fraternali, P., + , T-KDE Jan-Feb 97 173-178

T

Temporal databases

interval data mgt., SQL extension. Lorentzos, N.A., +, T-KDE May-Jun 97 480-499

relational query langs., expressive power. Tansel, A.U., + , T-KDE Jan-Feb 97 120-134

relational temporal data model. Tansel, A.U., T-KDE May-Jun 97 464-479 Temporal reasoning

framework for integrat, calendar dates and qualitat, temporal constraints in treatment of periodic events. *Terenziani*, P., T-KDE Sep-Oct 97 763-783

Testing; cf. Computer testing; Software testing

Theorem proving

empirical deductive DBMSs, semantics, consistency and query proc. Ng, R.T., T-KDE Jan-Feb 97 32-49

Tree data structures

database mgt., seq. trees and tokens. Goldstein, R.C., + , T-KDE Jan-Feb 97 186-192

INC2.5 incremental concept form. syst., learning, predict class. Hadzikadic, M., +, T-KDE Jan-Feb 97 168-173

multiversion locking, indexing struct., perform. eval. *Bober, P.M., + , T-KDE Jan-Feb 97* 68-84

n-dimens, quadtree decomp. for arbitrary hyperrectangles. Faloutsos, C., +, T-KDE May-Jun 97 373-383

optimal reorganization of B⁺-tree, phys. clustering. *Park, J.S., + , T-KDE Sep-Oct 97* 826-832

Tree data structures; cf. Octrees; Quadtrees

Tree searching

n-dimens, quadtree decomp, for arbitrary hyperrectangles. Faloutsos, C., + , T-KDE May-Jun 97 373-383

U

Uncertainty

empirical deductive DBMSs, semantics, consistency and query proc. Ng, R.T., T-KDE Jan-Feb 97 32-49

version space learning algm. for noisy and uncertain data. *Tzung-Pai Hong, + , T-KDE Mar-Apr 97* 336-340

User interfaces; cf. Graphical user interfaces; Natural language interfaces; User modeling

User modeling

interface agents that learn, rule induction and k-nearest neighbor methods. Payne, T.R., +, T-KDE Mar-Apr 97 329-335

W

Wireless LAN

data organization for low power consumption. Imielinski, T., +, T-KDE May-Jun 97 353-372

TKDE

Information for Authors

Audience and Content

The IEEE Transactions on Knowledge and Data Engineering (TKDE) is an archival journal published bimonthly. The information published in this transactions is designed to inform researchers, developers, managers, strategic planners, users, and others interested in state-of-the-art and state-of-the-practice activities in the knowledge and data engineering area. We are interested in well-defined theoretical results and empirical studies that have potential impact on the acquisition, management, storage, and graceful degeneration of knowledge and data, as well as in provision of knowledge and data services. We welcome treatments of the role of knowledge and data in the development and use of information systems and in the simplification of software and hardware development and maintenance. Since the journal is archival, it is assumed that the ideas presented are important, have been well analyzed and/or empirically validated, and are of value to the knowledge and data engineering research community.

Specific topics include, but are not limited to: a) artificial intelligence techniques, including speech, voice, graphics, images, and documents; b) knowledge and data engineering tools and techniques; c) parallel and distributed processing; d) real-time distributed; e) system architectures, integration, and modeling; f) database design, modeling and management; g) query design and implementation languages; h) distributed database control; i) algorithms for data and knowledge management; j) performance evaluation of algorithms and systems; k) data communications aspects; l) system applications and experience; m) knowledge-based and expert systems; and, n) integrity, security, and fault tolerance. For a list of current areas published in *TKDE*, refer to the editorial in the February 1994 issue.

Submission Policy

Papers that may be submitted for consideration include those that have not been previously published in another journal, or are not currently being published or reviewed by another journal or conference, as well as those that have been published in conference proceedings, digests, and records and that have undergone substantial revision.

Papers are published in *TKDE* as *regular* papers, *concise* papers, or *correspondence*. A *regular* paper usually reports the results of original research. The title, abstract, introduction, and summary should be sufficiently informative to make the contributions of the paper clear to the broadest possible audience, and to place them in context with related work. A *concise* paper presents results that are important and original and are presented in concise form; and, a *correspondence* is used to convey only a few principal ideas or to comment on work previously published in this transactions.

As part of regular papers, we solicit research *surveys* that present new taxonomies, research issues, and current directions on a specific topic in the knowledge and data engineering areas. Each should have an extensive bibliography that is useful for experts working in the area, and should not be tutorial in nature. As part of correspondences, we solicit *correspondences on recent developments* that describe recent results, prototypes, and new developments whose timely publication is important.

The author is responsible for obtaining any necessary copyright releases for material which has been published previously, as well as all required corporate and security clearances prior to submitting material for consideration. It is the IEEE's policy (Policy 6.16) to assume that all clearances have been received by the author by the time a paper is submitted for publication.

Process for Submission of a Technical Paper and/or Proposal of a Special Issue

Delays in publication are minimized by carefully preparing manuscripts according to the following guidelines:

- 1) For papers and correspondence, send six copies of the manuscript to Manuscript Assistant, TKDE, IEEE Computer Society, 10662 Los Vaqueros Circle, PO Box 3014, Los Alamitos, CA 90720-1314 USA. Each copy should include illustrations, abstract, index terms, and biographies. Good photocopies of the illustrations may be used for the initial manuscript review. Original illustrations should be submitted with the final accepted version. Artwork is not returned.
- 2) Enclose a signed IEEE copyright transfer form with the manuscript.
- 3) Enclose a separate page giving your telephone number, fax number, e-mail address, and preferred address for correspondence.
- 4) The manuscript will be forwarded to one of the associate editors and the contact author will be notified. The associate editor will complete the review process and will correspond directly with the author regarding processing of the manuscript.
- 5) The referee process assures anonymity of reviewers of all papers. It is also possible to provide a blind review in which the author's identity is unknown to the reviewers. If you wish blind processing,

inform the editor-in-chief in your cover letter and ensure that your name appears only on a removable cover page.

6) For proposals of a Special Issue, contact the editor-in-chief for approval and directions. A special form for preparing such proposals is available by anonymous ftp from manip.crhc.uiuc.edu (128.174.197.211) in directory /pub/tkde.

Style for Manuscript

1) Text should be typewritten or printed from a laser printer, double-spaced in 10-point type or larger, on *one side only* of 8.5-inch x 11-inch or A4 white paper with margins of at least one inch on all four sides. All pages must be numbered sequentially.

2) There is a strict size limitation for all submissions. The limits are 35 pages for regular papers, 40 pages for surveys, 12 pages for concise papers, and 4 pages for correspondences, including illustrations. (A double spaced page is a page with 10-point fonts and 18-point vertical spacing).

3) At the head of the manuscript, provide a 100-200 word abstract for a regular paper, a 100-150 word abstract for a concise paper, and a 50 or less word abstract for a correspondence. Abstracts are published with the articles.

4) Provide from 5 to 10 index terms at the head of the manuscript below the abstract; and on a separate page.

5) Provide a separate double-spaced sheet listing all footnotes, beginning with "Affiliation of Author" data. Acknowledgment of financial support may be given if appropriate. Include mailing addresses and e-mail addresses for all authors.

6) All figures must be numbered and cited in the text, and have descriptive captions. Annotations in the figures should be large enough to be legible after reduction to a 3.5" width.

7) Originals for illustrations (including tables) should be sharp, noise-free, and of good contrast. We regret we cannot provide drafting or art services. Line drawings should be in black ink on white background. Use 8 1/2 x 11 inch sheets (or A4) if possible to simplify handling of the manuscript. On graphs, show only the coordinate axes, or at most major grid lines, to avoid a dense, hard-to-read result. All elttering should be large enough to permit legible reduction of the figure to column width, perhaps as much as 4 to 1. Photographs should be glossy prints, of good contrast and gradation, and any reasonable size. Number each original on the back, or at the bottom of the front.

8) References should appear in a separate bibliography at the end of the paper, with items referred to by numerals in square brackets. References should be complete, in IEEE style, and should be accessible to readers

Style for Papers: Author(s), first initials followed by last name (do not use *et al.*), title in quotation marks, periodical, volume, inclusive page numbers, month, and year.

Style for Books: Author(s), first initials followed by last name, title, edition. Location: publisher, year, chapter, and page numbers. (See this issue for examples.)

 Further style information is available on the Computer Society's Web site at http://computer.org/pubs/transguide/intro.htm.

Final Manuscript Su bmission

All papers in IEEE Computer Society transactions are edited electronically. When your paper is accepted for publication, you will be asked to supply an electronic version that exactly matches the final, accepted hard copy, including abstract, index terms, and biographies. As a result, manuscripts should be created in a text processing program such as TeX, LaTeX, troff, Word, WordPerfect, or a program that will produce ASCII files. Do *not* use page layout programs such as Ventura or PageMaker.

Send original illustrations. Provide a separate sheet listing all figure captions, in proper style for the page layout, e.g., "Fig. 1. Example of a disjoint and distraught manifold."

Provide a technical biography and a photograph of each author of the paper. These will be required and published in full papers but not in concise papers or correspondences.

Page Charges and R eprints

After a manuscript is accepted for publication, the author's company or institution is requested to pay a charge of \$110 per printed page to cover part of the cost of the publication. Page charges for the IEEE Computer Society transactions are not obligatory nor is their payment a prerequisite for publication. The author will receive 100 free reprints if the charge is honored. Detailed instructions on paying page charges or ordering reprints are sent to authors at the time the manuscript is prepared for publication. Administration of page charges is handled by the Computer Society Publications Office in Los Alamitos, California.

PURPOSE The IEEE Computer Society is the world's largest association of computing professionals, and is the leading provider of technical information in the field.

MEMBERSHIP Members receive the monthly magazine COMPUTER, discounts, and opportunities to serve (all activities are led by volunteer members). Membership is open to all IEEE members, affiliate society members, and others interested in the computer field.

COMPUTER SOCIETY INTERACTIVE

The IEEE Computer Society's Web site, at http://computer.org, offers information and samples from the society's publications and conferences, as well as a broad range of information about technical committees, standards, student activities, and more.

OMBUDSMAN Members experiencing problems - magazine delivery, membership status, or unresolved complaints may write to the ombudsman at the Publications Office or send an e-mail to membership@computer.org.

CHAPTERS Regular and student chapters worldwide provide the opportunity to interact with colleagues, hear technical experts, and serve the local professional community.



AVAILABLE INFORMATION

To obtain more information on any of the following, contact the Publications

- Membership applications
- · Publications catalog
- Draft standards and order forms
- · Technical committee list
- Technical committee application
- Chapter start-up procedures
- Student scholarship information
- Volunteer leaders/staff directory
- · IEEE senior member grade application (requires 10 years practice and significant performance in five of those 10)

To check membership status or report a change of address, call the IEEE tollfree number, (800) 678-4333. Direct all other Computer Society-related questions to the Publications Office.

PUBLICATIONS AND ACTIVITIES

Computer. An authoritative, easy-toread magazine containing tutorial and indepth articles on topics across the computer field, plus news, conferences, calendar, industry trends, and product reviews.

Periodicals. The society publishes 11 magazines and eight research transactions. Refer to membership application or request information as noted at left.

CD-ROM. The society produces an annual CD-ROM containing over 14,000 pages of periodical content.

Conference Proceedings, Tutorial Texts, Standards Documents.

The Computer Society Press publishes more than 100 titles every year.

Standards Working Groups. More than 200 of these groups produce IEEE standards used throughout the industrial world.

Technical Committees. TCs publish newsletters, provide interaction with peers in specialty areas, and directly influence standards, conferences, and education.

Conferences/Education. The society holds about 100 conferences each year and sponsors many educational activities, including computing science accreditation.

President: BARRY JOHNSON*

University of Virginia Dept of Electrical Engineering Thornton Hall Charlottesville, VA 22903-2442 0: (804) 924-7623 F: (804) 924-8818 b.w.jobnson@computer.org

President-Elect: DORIS L. CARVER*

Past President: MARIO R. BARBACCI*

VP, Press Activities: I. MARK HAAS 1

VP, Educational Activities: WILLIS K. KING †

VP, Conferences and Tutorials: GUYLAINE M. POLLOCK (2ND VP) *

VP, Membership Activities: DAVID PESSEL*

VP, Publications: RICHARD H. ECKHOUSE *

VP, Standards Activities: JAMES D. ISAAK*

VP, Technical Activities: LEONARD L. TRIPP (1ST VP)*

Secretary: MICHEL ISRAEL*

Treasurer: BENJAMIN W. WAH*

IEEE Division V Director: MICHAEL C. MULDER †

IEEE Division VIII Director: LAUREL V. KALEDA†

Executive Director: T. MICHAEL ELLIOTT †

* voting member of the Board of Governors
† nonvoting member of the Board of Governors

BOARD OF GOVERNORS

Term Expiring 1997: L.F. Cabrera, Carl K. Chang, Wolfgang K. Giloi, Michel Israel, John A.N. Lee, Sallie V. Sheppard, Ronald D. Williams

Term Expiring 1998: Elliot J. Chikofsky, JoAnne E. DeGroat, Ted G. Lewis, David Pessel, Benjamin W. Wab, Ronald Waxman, Thomas W. Williams

Term Expiring 1999: Steve L. Diamond, Richard A. Eckhouse, Gene F. Hoffnagle, Tadao Ichikawa, James D. Isaak, Karl Reed, Deborah K. Scherrer

Next Board Meeting: February 16-20, 1998, San Francisco, California

EXECUTIVE STAFF

Executive Director: T. MICHAEL ELLIOTT Publisher: MATTHEW S. LOEB Director, Volunteer Services: ANNE MARIE KELLY Director, Finance & Administration: VIOLET S. DOAN Director, Information Technology & Services: ROBERT G. CARE Manager, Research & Planning: JOHN C. KEATON

COMPUTER SOCIETY OFFICES

Headquarters Office

1730 Massachusetts Ave. NW Washington, DC 20036-1992 Phone: (202) 371-0101 • Fax: (202) 728-9614 E-mail: bq.ofc@computer.org

Publications Office

10662 Los Vaqueros Cir., PO Box 3014 Los Alamitos, CA 90720-1314 General Information: Phone: (714) 821-8380 E-mail: membership@computer.org Membership and Publication Orders: Phone: (800) 272-6657 Fax: (714) 821-4641 E-mail: cs.books@computer.org

European Office

13, Ave. de L'Aquilon B-1200 Brussels, Belgium Phone: 32(2) 770-21-98 • Fax: 32(2) 770-85-05 E-mail: euro.ofc@computer.org

Asia/Pacific Office

Ooshima Building 2-19-1 Minami-Aoyama, Minato-ku, Tokyo 107 Phone: 81(3)3408-3118 • Fax: 81(3)3408-3553

E-mail: tokyo.ofc@computer.org

IEEE OFFICERS

President: CHARLES K. ALEXANDER

President-Elect: JOSEPH BORDOGNA

Executive Director: DANIEL J. SENESE

Secretary: PAUL Y.S. CHEUNG

Treasurer: HOWARD L. WOLFMAN

VP, Educational Activities: JERRY R. YEARGAN

VP, Professional Activities: DANIEL R. BENIGNI

VP, Publications: FRIEDOLF M. SMITS

VP, Regional Activities: RAYMOND D. FINDLAY

VP, Standards Activities: DONALD C. LOUGHRY

VP, Technical Activities: LLOYD A. MORLEY